Docking Station with Video

User’s Manual

ABOUT THIS MANUAL

This manual is designed for use with the Docking Station with Video. Information in this document has been carefully checked for accuracy; however, no guarantee is given to the correctness of the contents. The information in this document is subject to change without notice. The manufacturer does not make any representations or warranties (implied or otherwise) regarding the accuracy and completeness of this document and shall in no event be liable for any loss of profit or any commercial damage, including but not limited to special, incidental, consequential, or other damage.

SAFETY INSTRUCTIONS

Always read the safety instructions carefully:

- Keep this User's Manual for future reference
- Keep this equipment away from humidity
- If any of the following situation arises, get the equipment checked by a service technician:
  - The equipment has been dropped and damaged.
  - The equipment has obvious sign of breakage.
  - The equipment has not been working well or you cannot get it to work according to the User's Manual.

COPYRIGHT

This document contains proprietary information protected by copyright. All right are reserved. No part of this manual may be reproduced by any mechanical, electronic or other means, in any form, without prior written permission of the manufacturer.

TRADEMARKS

All trademarks and registered trademarks are the property of their respective owners or companies.

Table of Contents

1. Introduction 1
Features 2
Package Contents 2
System Requirements 2
Assembly and Disassembly 3
Front Panel 4
Rear Panel 5

2. Installation 6
A. On Windows 2000 / XP / Vista 6
B. Connecting the Docking Station to Computer 9
C. Connecting Devices to the Docking Station 9
Connecting Ethernet network device 9
Connecting DVI Monitor 9
Connecting USB Devices 10
Connecting Microphone and Speaker/Headphones 10

3. Using the Docking Station with Video 11
USB 2.0 Ports 11
Audio Ports 11
Configuring Windows Audio Device 11
Configuring Instant Messaging Software Audio Device 12
Ethernet Port 12
Video Port 13
Display Modes 13
Adjusting Resolution, Color Depth and Refresh Rate 16
Disconnecting the Docking Station 19
How Standby or Hibernate Mode Affects Devices Attached to the Docking Station 20
External Monitors 20
Other Devices 20

4. Uninstalling the Drivers 21
Uninstalling the USB or Ethernet Display Adapter 21

5. Specifications 22

6. Regulatory Compliance 23
FCC Conditions 25
CE 25
WEEE Information 25

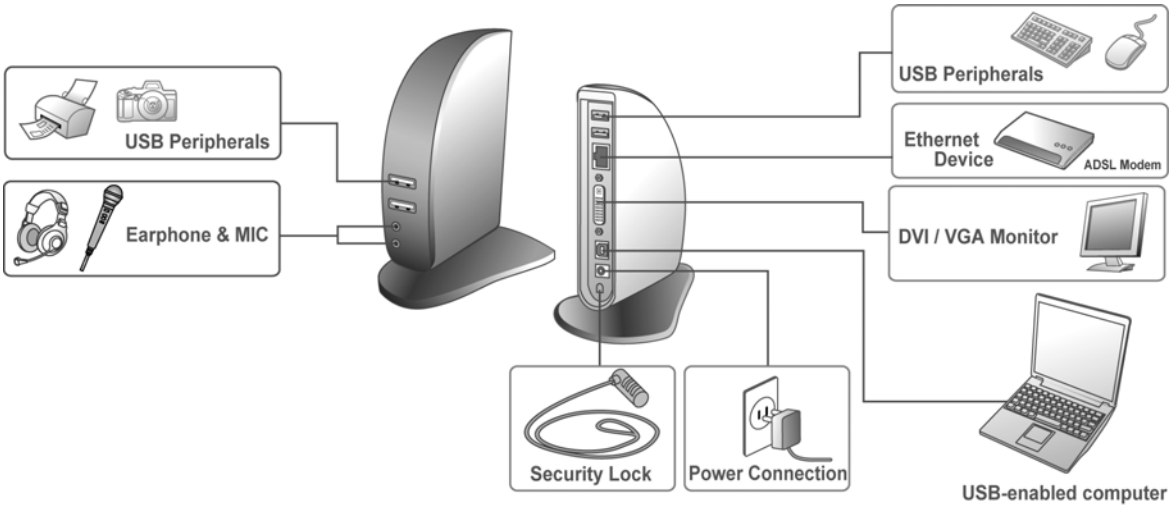
1. Introduction

The Docking Station with Video is a unique expansion unit designed for computers that have extra connectivity demands. Just with one USB port on the computer, its connection can be extended not only to USB peripherals, Ethernet network, speaker, microphone but also an additional monitor. It also offers desktop computer users the convenience of accessing the peripherals within the reach, eliminating the hassle of connect or disconnect the peripherals from the rear of a computer.

With the video port your computer can be connected to one more monitor, LCD or projector. The connected monitor can be configured to either mirror your primary screen, or extend the Windows desktop allowing visibility of more applications at the same time. No more stacking windows within the confines of a single display.

As to the housing, aside from the impressive sailboat-like appearance, the upright design of the body helps to spare your desktop space. Most peripherals are connected behind while two USB ports and audio outputs are implemented on the front panel for easier accessibility. An industry standard security lock is also provided for anti-theft purpose.

Enhanced expansion capability plus the stylish appearance, surely this docking station with video is the most versatile accessory that also complements your home or office space.



Features

- Great expansion unit for computers with extra connectivity demand
- Extends connectivity to USB peripherals, Ethernet network, speaker, microphone, and even an additional monitor
- Creative appearance complements any home or office space
- Industry-standard security lock slot for anti-theft purpose
- Windows Vista compatible
- Plug-and-Play
- Hot pluggable; add or remove devices without system reboot
- Resumes from hibernation and suspend modes

Package Contents

- Docking Station with Video x1
- Base Plate x1
- USB 2.0 Cable x1
- Power Adapter x1
- CD (Driver and User's Manual) x1
- Quick Installation Guide x1
- DVI to VGA Adapter (for DVI model only) x1

System Requirements

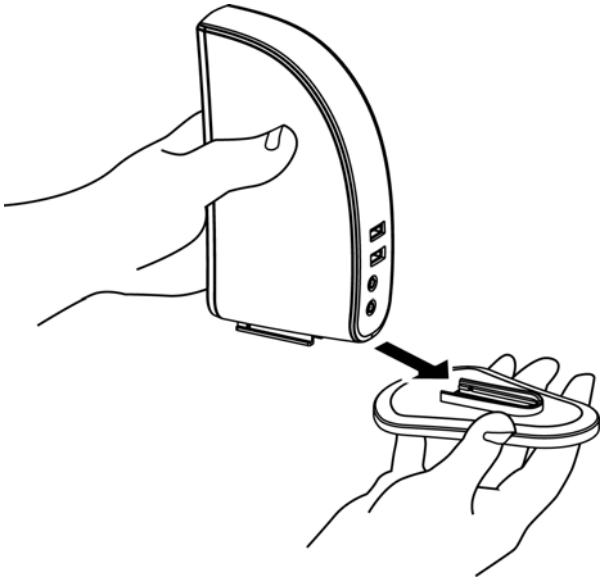
- With CPU at 1.2GHz or higher processor clock. Intel Pentium/Celeron family, or AMD K6/Athlon/Duron family, or compatible processor
- 512 MB of RAM
- USB 2.0 port
- 30MB of available disk space
- Windows 2000, XP 32-bit, Vista 32/64-bit

To play DVD on the add-on monitor, in addition to the requirements above, the following requirements should also be met:

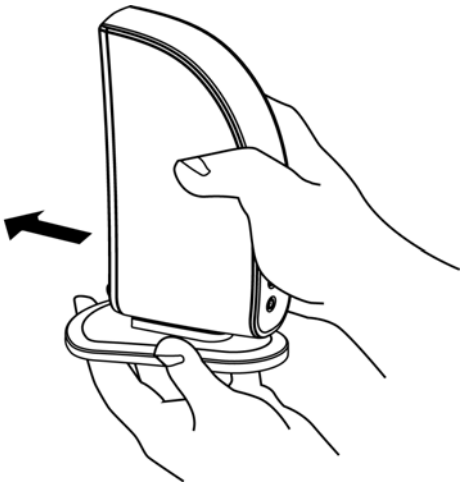
- With dual core CPU at 2.0 GHz processor clock
- The adapter screen resolution be set to 800x600 with 16bit color

Assembly and Disassembly

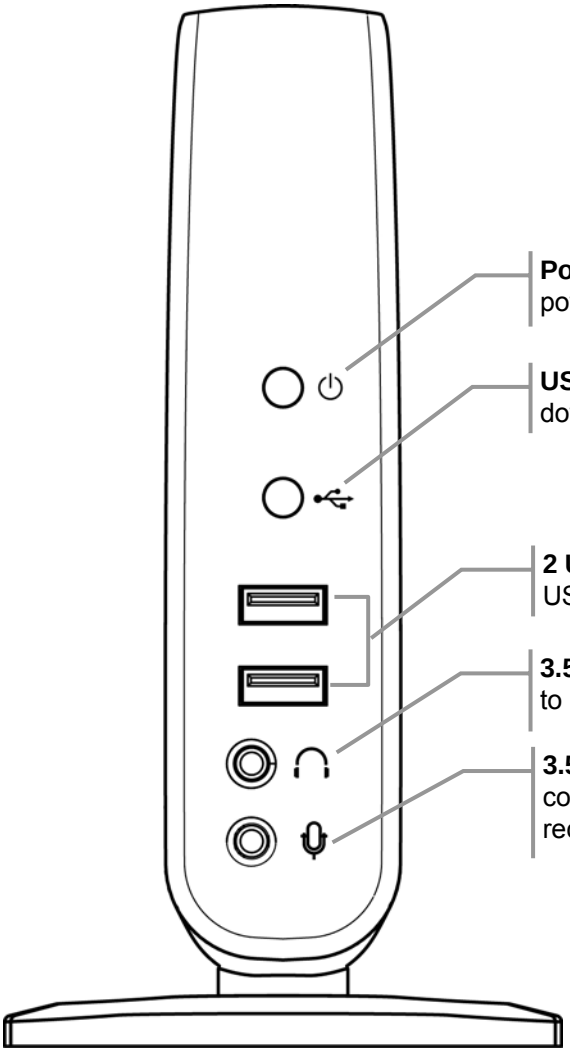
The docking station comes with a base plate to make it self-standing. To assemble the docking station, slide the body of the docking station firmly as shown below. Make sure a click is heard to ensure the body snaps into place.



To disassemble the docking station, hold the base with one hand and then use another hand to push the docking station firmly as shown below.



Front Panel



Power LED: Glows when the docking station is powered.

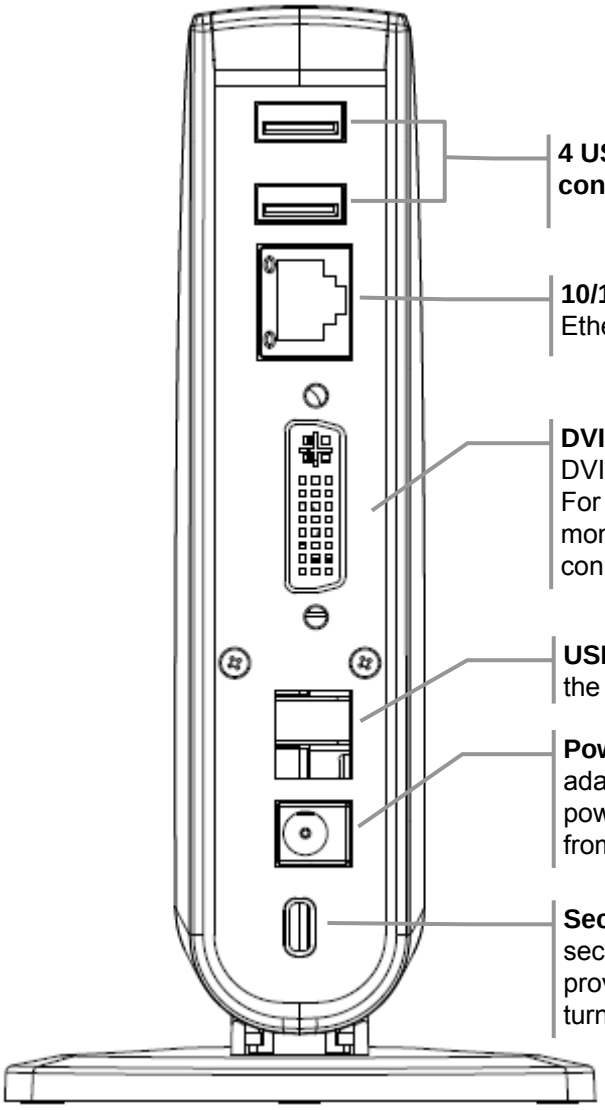
USB Hub LED: Glows when any of the four USB downstream ports is connected to a USB device.

2 USB 2.0 downstream ports: For connection to USB peripherals.

3.5 mm stereo audio output port: For connection to stereo headphones or speakers.

3.5 mm stereo microphone input port: For connection to an external microphone for recording.

Rear Panel



4 USB 2.0 downstream ports (A type female connector): For connection to USB peripherals.

10/100 Mbps Ethernet port: For connection to the Ethernet network via a network cable (not provided).

DVI video output port: For connection to a VGA or DVI monitor.
For DVI model, if you want to connect to a VGA monitor, use the provided DVI to VGA adapter for connection.

USB upstream port: For connection to the USB port of the host computer.

Power jack: For connection to the provided power adapter. The Docking Station always needs external power supply for operation, as it does not take power from the USB bus.

Security lock slot: Industry-standard Kensington® security slot for connection to a security lock (not provided). Insert the lock's locking end into the slot and turn the key to lock the docking station.

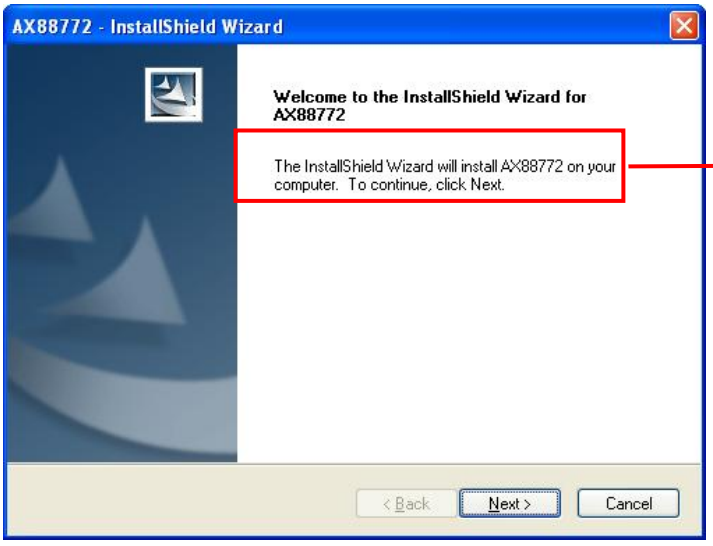
2. Installation

As the docking station with video comprise several components and some components require specific installation procedure, please follow the steps described in this manual to install the drivers first and then make the connection.

A. On Windows 2000 / XP / Vista

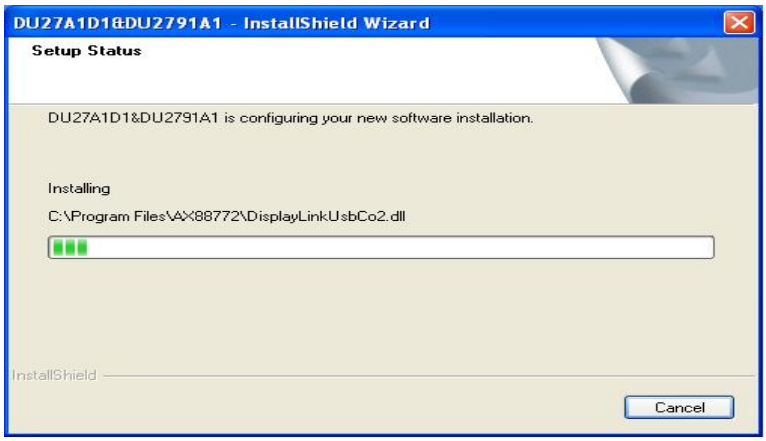
To install the Ethernet Driver:

1. Insert the provided CD into your disc drive, locate and double-click the **Setup.exe** file under **x:\Driver\Ethernet** where x is your disc drive letter. Click **Next** to the next step for installation.



Actual strings depend on your operation system. These screen shots are from Windows XP and might vary slightly for each operation system.

2. It will take for a while to install the driver.

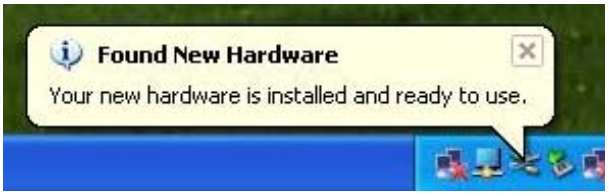


3. Please click **I Accept** after reading the statement of "**SOFTWARE END USER LICENCE AGREEMENT FOR DISPPLAYLINK MIRROR DRIVER and DISPLAYLINK GRAPHICS ADAPTER SOFTWARE**".

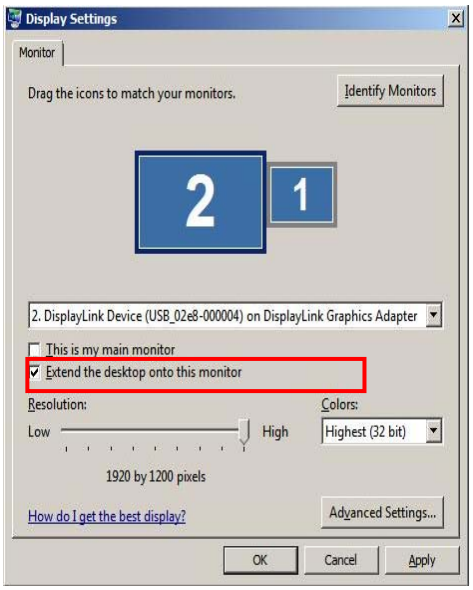
Do not connect the docking station to your computer at this stage. Please proceed to next section to continue with the video component installation.

4. Please wait while Windows configures DisplayLink Core Software. Your screens may temporarily go black or flash during this process.

5. Plug Docking Station with Video to your computer by USB cable. Then the pop-up message will be shown in the notification area.



Note: If your primary monitor became black when you connect Docking Station to your computer, please right-click on the desktop and choose **Property** on your remote monitor. Then select **Settings** label to review your setting of monitor.



(Note: The string after USB_XXXX_XXXXXX will vary by different products.)

B. Connecting the Docking Station to Computer

1. Assemble the docking station by sliding the main body onto the base plate to make it self-standing.
2. Plug the power cord of the power adaptor into the **DC IN** jack on the back of the docking station and then connect the power adapter to a working electrical outlet.

   The **Power** indicator on the front panel glows when the docking station is powered on.
3. Plug the square end of the USB cable into the USB upstream connector at the back of the docking station.
4. Plug the other end of the USB cable into an available USB 2.0 port on your computer.

Upon the USB connection, your computer will automatically complete the remaining installation, including installing Windows built-in drivers for the USB hub.

A pop-up message will appear in the notification area indicating the installation status. Wait for the final message indicating the driver software installation is successful. Then the docking station is ready for use.

C. Connecting Devices to the Docking Station

Now the installation is complete. You can connect the peripherals/monitor to appropriate ports on the docking station as required. If required, you can connect and disconnect the peripherals/monitor any time without disconnecting the docking station from the USB port on your computer.

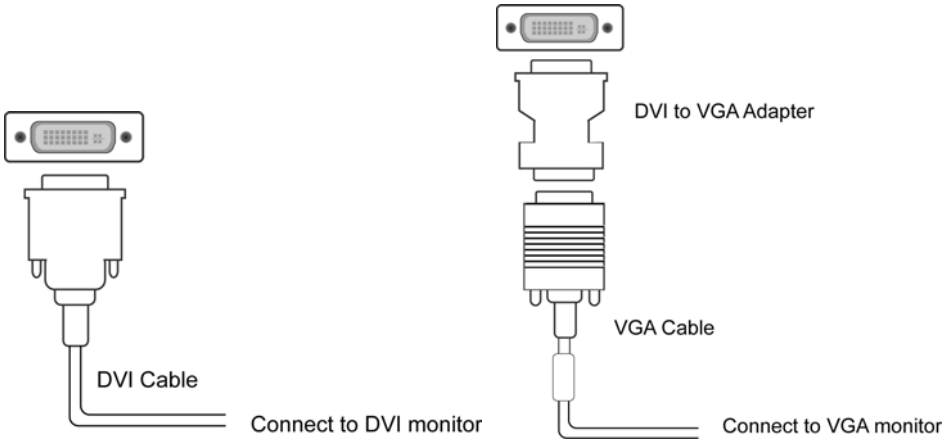
Connecting Ethernet network device

1. Connect an Ethernet cable to the **Ethernet** port on the docking station.
2. Connect the other end of the Ethernet cable to your network hub, switch or router.

Connecting VGA/DVI Monitor

- **For DVI model:** The equipped DVI-I (DVI-Integrated) connector transmits both the digital and analog signals. This means it supports either of these two connection types:
  - It can be connected to a DVI-D (digital) monitor using a DVI cable (not provided)

- Or, it can be connected to an analog VGA monitor using the privided DVI-I to VGA adapter and a VGA cable (not provided).



Upon the connection it's normal that the screen flicks black a couple of times. Once the connection is done, an extended screen will appear on the add-on monitor. Sometimes it takes time for the add-on monitor to show the video. Please wait for while.

For Windows Vista, if the add-on monitor has been blank for a while, please reboot your system again.

To change the display mode, see next chapter for instructions.

Connecting USB Devices

Connect your USB devices to the USB ports on the docking station. As long as one USB device is connected to the port and the connection works properly, the USB LED glows green (on). When no USB device is connected to the port, the LED light is off.

If your USB device, such as a printer or optical drive, etc., came with its own AC adaptor, make sure that it is plugged into the device and a working electrical outlet.

Connecting Microphone and Speaker/Headphones

To connect your speaker/headphones, insert the plug to the green hole on the front of the docking station.

To connect a microphone, insert the plug to the pink hole on the front of the docking station.

3. Using the Docking Station with Video

USB 2.0 Ports

The four USB ports on the docking station function just like the ports on a USB hub. Just connect any USB device to the docking station's USB ports when required.

- All the four USB ports provide power when the computer is either off, suspended or hibernated. This means you can use the USB port for power charging purpose.
- The USB port supports hot-plug feature. You may plug and unplug an USB device from the docking station at any time when required.
- Some USB devices, e.g., printers and optical drives, require higher power to operate. To use these devices, the power adapter shipped with the device should be plugged into the device and the mains.

Audio Ports

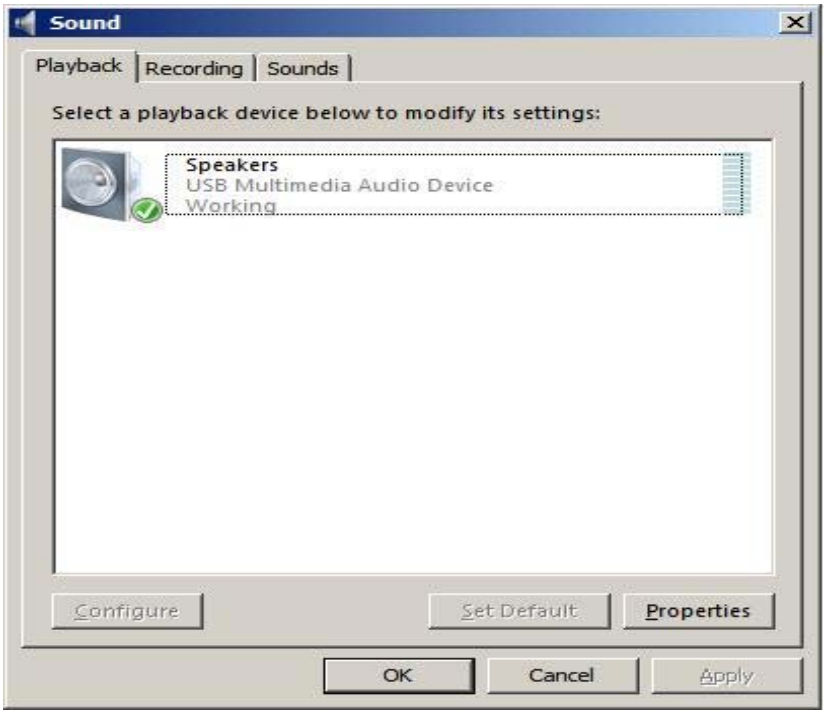
Prior to using the speaker/microphone connected to the docking station, you have to correctly configure your application to use **USB (Multimedia) Audio Device**, i.e., the audio components of the docking station.

When the docking station is connected to your computer, the audio devices named **USB (Multimedia) Audio Device** are automatically installed and ***may override Windows default audio settings***. The most obvious effect is that your original music playback will be re-directed to the speaker connected to the docking station. However, it's possible that users may want to use original sound card for music playback and use the docking station's audio ports for chatting via instant messaging software (such as MSN messenger, Yahoo messenger or Skype). In such cases users have to manually configure required audio device for each application.

Configuring Windows Audio Device

To specify a sound device for music playback in Windows, open **Control Panel** and double-click the sound or audio icon. Then select a desired device in the playback

section. If you want to use your original sound card for music playback, make sure to select it instead of **USB (Multimedia) Audio Device**.



Configuring Instant Messaging Software Audio Device

To chat via instant messaging software using the headphone and microphone connected to the docking station, make sure the instant messaging software, such as MSN messenger, Yahoo messenger or Skype, are configure to use **USB (Multimedia) Audio Device** as the audio in and out devices.

Ethernet Port

The Ethernet port supports Ethernet 10/100 Mbps function. To connect your computer to a network through the docking station, attach one end of a network cable (not provided) to the **Ethernet** port on the docking station and the other end to your network hub, switch or router for network access.

Video Port

Display Modes

There are several ways you can utilize the monitor attached on the docking station. The add-on monitor can be configured to use either “mirror mode”, “extended mode” or be the primary display as described in this section.

Extend Your Windows Desktop to Add-on Monitor (Default)

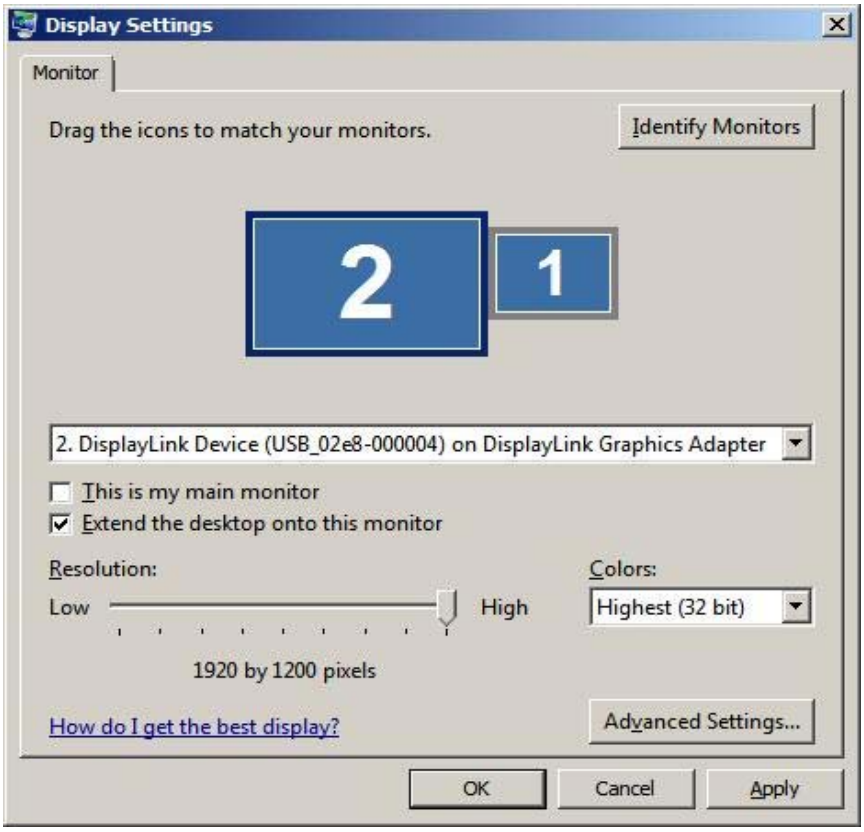
In this so-called “extended mode”, your display will be spread over the add-on monitor(s). This mode allows you to perform multiple tasks more effectively without overlapping windows.

Extended mode is the default setting. To set up the video component to use or restore extended mode, follow these steps:

1. Position the mouse anywhere on your computer desktop, right-click and select **Personalize** > **Display Settings** on Vista or **Properties** > **Settings** on XP/2000.
2. In the **Display** drop-down menu, select the option with the string “**DisplayLink Graphics Adapter**”.
3. Check the **Extend the desktop onto this monitor** box on Vista or **Extend my Windows desktop onto this monitor** box on XP/2000.
4. Drag the icons in the window at the top of the screen to match the physical arrangement of your primary monitor and add-on monitor.

   The add-on monitor connected to the docking station may be identified as either "2" or “3”, depending on your computer, although there may not be a total of 3 screens connected.

5. Click **OK** to close the settings screen.



(Note: The string after USB_XXXX_XXXXXX will vary by different products.)

Once the setting is done, to use your extended desktop, simply drag and drop your open windows over to your second monitor. However, note that some applications may not support display on the extended desktop.

Cursor disappeared ?

If you're in extneded mode but the add-on monitor is not connected, the desktop still pans to the add-on monitor and it's possible that your cursor has moved to the extended desktop so that you cannot find it on the primary display. To solve the problem in such a case, connect the add-on monitor to the docking station or keep moving your mouse to try or unplug the docking station first to restore the cursor.

Video and DVD Playback in Extened Mode

On Windows Vista with extended mode, it's suggested that you run video or DVD playback programs on your primary monitor instead of the add-on monitor to ensure the playback performance.

Mirror Your Windows Desktop

This mode is referred to as "mirror" or "clone" mode. In this mode, your original screen (the primary display) will be mirrored to the add-on monitor.

In mirror mode, the video component will automatically select the settings (screen resolution, color quality and refresh rate) for the add-on monitor. But you can manually adjust the settings as required. However, the settings of the add-on monitor are limited by that of the primary monitor. For example, even though your add-on monitor supports a resolution of up to 1680x1050, you can only configure it to use 1280x1024 due to the primary monitor only supports a resolution of up to 1280x1024.

If you change the video output to extended mode and then want to switch back to mirror mode, follow these steps:

1. Position the mouse anywhere on your computer desktop, right-click and select **Personalize** > **Display Settings** on Vista or **Properties** > **Settings** on XP/2000.
2. In the **Display** drop-down menu, select the option with the string "**DisplayLink Graphics Adapter**".
3. Uncheck the **Extend the desktop onto this monitor** on Vista or **Extend my Windows desktop onto this monitor** on XP/2000.
4. Click **OK** to close the settings screen.

Be the Primary Monitor

To make the add-on monitor the primary display:

1. Position the mouse anywhere on your computer desktop, right-click and select **Personalize** > **Display Settings** on Vista or **Properties** > **Settings** on XP/2000.
2. In the **Display** drop-down menu, select the option ends with **DisplayLink Graphics Adapter**.
3. Check the **This is my main monito**r box on Vista or **Use this device as the primary monitor** box on XP/2000.

   On some PCs and laptops it is necessary to disable the main display (i.e. uncheck the **Extend the desktop onto this monitor** or **Extend my Windows desktop onto this monitor** box for the main display) as part of the same settings change.

4. Click **OK** to close the settings screen.

The add-on monitor stays primary if the PC enters hibernate or suspend mode or is rebooted. If the add-on monitor is unplugged, the main display becomes primary again.

Adjusting Resolution, Color Depth and Refresh Rate

There are three components that make up the screen mode:

Resolution: In common usage, this refers to the number of pixels displayed on screen horizontally and vertically.

Color Depth: This defines the number of different colors that can be shown on the screen at the same time.

Refresh rate: Measures the speed that the entire screen is rescanned. Higher frequencies reduce flicker.

Some monitors advertise the supported modes through the video connector. If this is the case, the video component identifies the supported modes from the monitor. If the monitor does not advertise the supported modes, the video software chooses a set of common screen modes for the monitor.

The software supports the modes listed below.

Color Depth / Resolution	Refresh rates available at 16 bit color quality	Refresh rates available at 32 bit color quality
640x480	60 72 75 85	60 72 75 85
800x600	56 60 72 75 85	56 60 72 75 85
1024x768	60 70 75 85	60 70 75 85
1280x960	60 85	60 85
1280x1024	60 75	60 75
1360x768	60	60
1366x768	50 60	50 60
1368x768	60	60
1400x1050	60 75 85	60 75 85
1440x900	60	60
1600x1200	60	60
1680x1050	60	60
1920x1080	60 50	60 50
1920x1200	60	60

About the resolutions and refresh rates available to users

The resolutions and refresh rates available to the user through Windows are a comprise of the support from the following elements:

- The video component of the docking station
- The primary monitor and the add-on monitor
- The primary video card on your computer and installed drivers

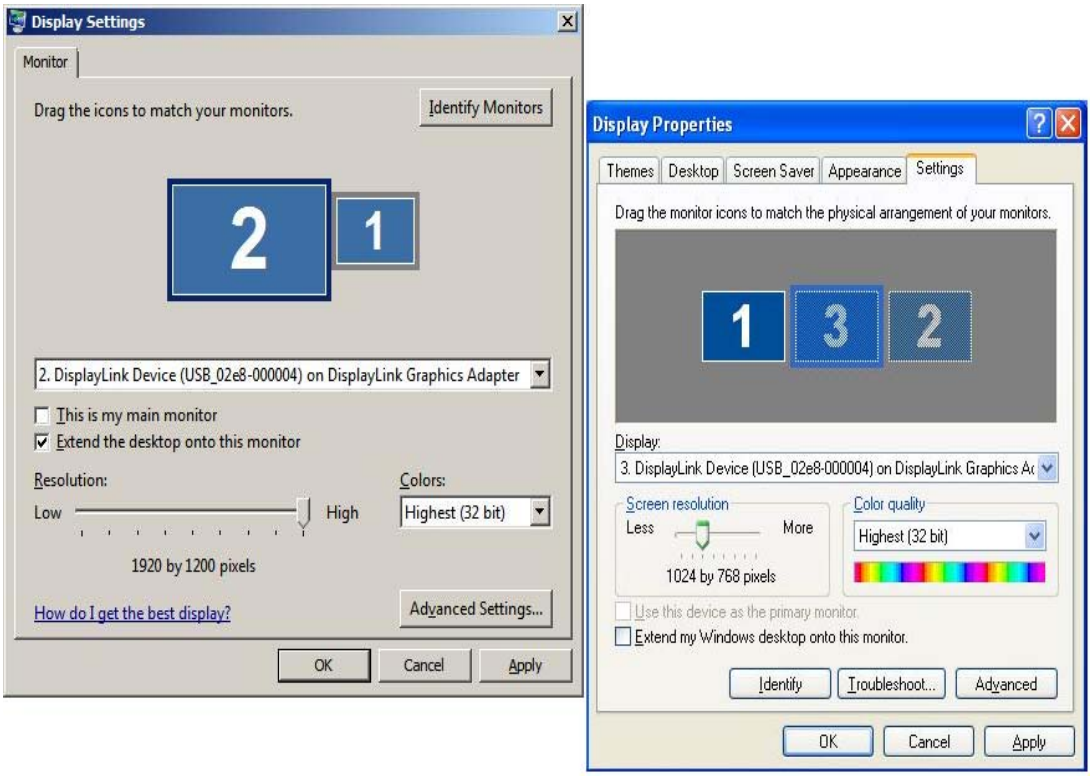
Therefore, for example, if your monitor doesn't support a resolution of 1600x1200, then 1600x1200 is not possible though your dokcing station's video component supports 1600x1200. This ensures that the monitor cannot be put into an unsupported mode, which might damage it.

If cloning the primary display, the video component will try to use the preferred monitor mode. In some cases, this may not be the most appropriate mode for the

cloned desktop. It is recommended that the primary display resolution be changed to closer match the default resolution of the add-on monitor.

To configure the three components (resolution, color depth and refresh rate) of a screen mode, follow these steps:

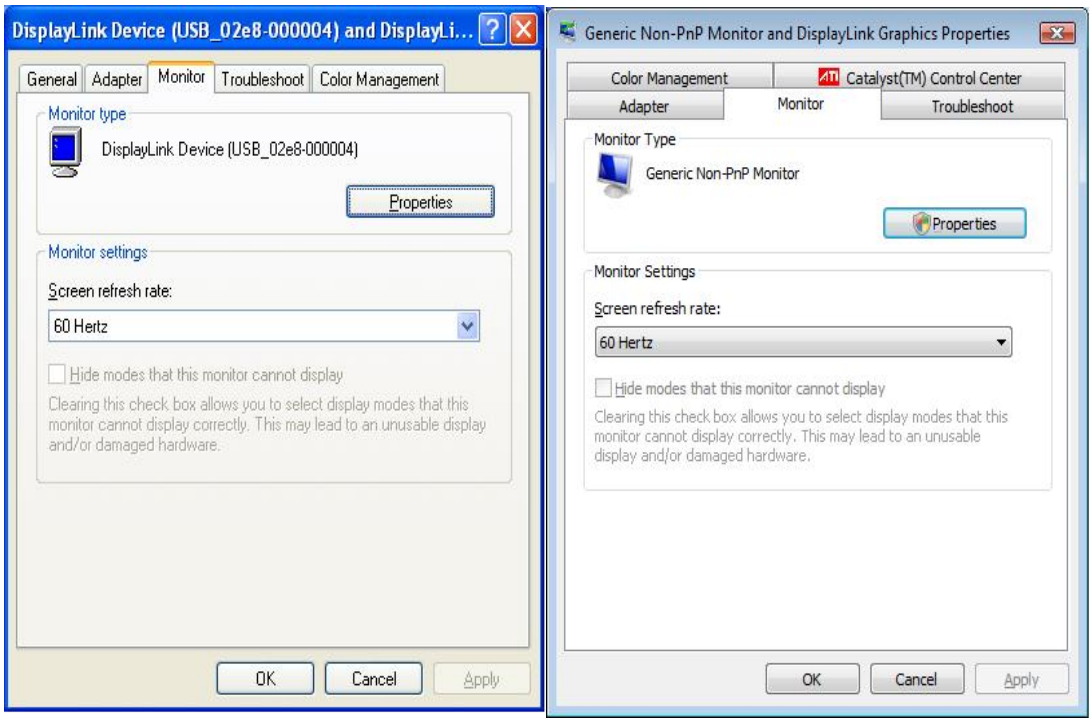
1. Position the mouse anywhere on your computer desktop, right-click and select **Personalize** > **Display Settings** on Vista or **Properties** > **Settings** on XP/2000.
2. In the **Display** drop-down menu, select the option ends with **DisplayLink Graphics Adapter**.
3. To change the screen resolution or color quality, select those options on the screen. Be sure to select one of the supported resolutions and color quality numbers in the table above. For an add-on monitor, you can also select any resolution or color quality supported by that monitor.



(Note: The string after USB_XXXX_XXXXXX will vary by different products.)

4. To change the refresh rate, click **Advanced…** and then click **Monitor**.
5. Select a refresh rate from the **Screen** refresh rate drop-down list and then click **Apply**.

6. Click **OK** to close the settings screen.



(Note: The string after USB_XXXX_XXXXXX will vary by different products.)

Disconnecting the Docking Station

If the docking station is unplugged from the computer, the add-on monitor goes blank. All windows and icons move to the primary screen.

On reconnection of the docking station, the docking station returns to the same mode as it was before disconnection. However, windows and icons that were previously on the screen will not be moved back.

How Standby or Hibernate Mode Affects Devices Attached to the Docking Station

External Monitors

When the docking station is connected to a computer and an external monitor, if the computer goes into standby or hibernate mode, the external monitor display goes blank.

When the computer returns to an active state, the external monitor display keeps the same settings it had before the computer went into standby or hibernate mode. However, if the add-on monitor was set for extended mode, windows that were previously on the external monitor will not move back to that secondary monitor. Also, if the add-on monitor is in extended mode and the computer requires a login after standby or hibernate mode, the login screen appears on the primary computer monitor, not the external monitor.

If the computer is shut down, restarted and logged in, again the add-on monitor returns to the same mode as it was before shutdown.

Other Devices

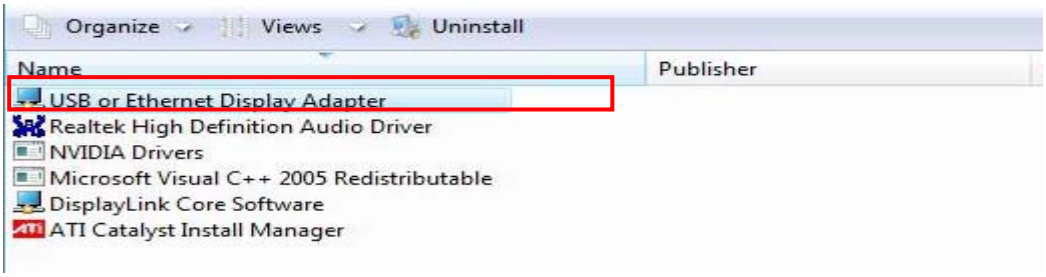
If another device is connected to a port on the docking station and the computer goes into standby or hibernate mode, that device will not function. For example, if you are using the Ethernet port for high-speed network access, network access will not be available until the computer returns to an active state.

4. Uninstalling the Drivers

Uninstalling the USB or Ethernet Display Adapter Driver

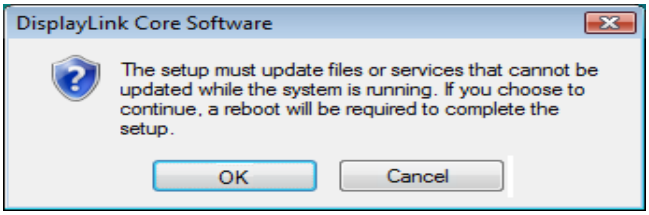
Please take these steps to uninstall Drive:

1. Open the **Control Panel** and double-click **Programs and Features** on Vista or **Add or Remove Programs** on 2000/XP.
2. Select **USB or Ethernet Display Adapter**…and click Uninstall or Remote

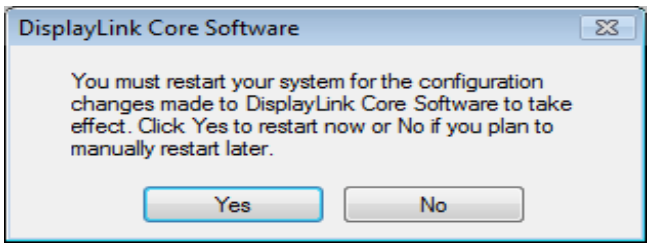


3. Click **Yes** to confirm the removal.

4. When prompted for system restart, click **OK**.



5. Click **Yes** to restart your computer. You can also disconnect the video connection now.



5. Specifications

General	
Host Interface	USB 2.0
Operating System Support	Windows 2000 SP4, XP SP2 and Vista
Ports and Connectors	
Upstream	1 x Upstream USB 2.0 Port (Type B female Connector)
USB Hub Downstream	4 x Downstream USB 2.0 Port (Type A female connector)
Ethernet	1 x Ethernet Port (10/100 Base-T Ethernet RJ-45 connector)
Video	1 x DVI-I Port (24pin + 5pin Female Connector)
Audio	1 x microphone (3.5 mm stereo audio in) 1 x headphones/speaker (3.5 mm stereo audio out)
Security Lock Slot	Industry-standard Kensington® security slot
LED	
Power LED (Blue)	On: Power is supplied to the docking station. Off: No power is supplied to the docking station.
USB Hub LED (Green)	On: Any of the four USB downstream ports is connected to a USB device. Off: No USB device is connected.
Power	
Power Adapter	Input: AC 100-240V, 50~60 Hz Output: DC 5V / 2.5A
Power Mode	Self-powered
Ethernet Component	

Network Standards	IEEE 802.3: 10Base-T IEEE 802.3u: 100Base-T
Data Transfer Rates	Ethernet: 10Mbps/20Mbps (Half/Full Duplex) Fast Ethernet: 100Mbps/200Mbps (Half/Full Duplex)
RAM	Embedded 16KB SRAM for RX packet buffering and 8KB SRAM for TX packet buffering
Video Component	
Supported Modes	Extended Desktop (Default), Mirrored Desktop, Primary Display

Resolutions, Refresh Rate and Color Depth

Color Depth / Resolution	Refresh rates at 16 bit color quality	Refresh rates at 32 bit color quality
640x480	60 72 75 85	60 72 75 85
800x600	56 60 72 75 85	56 60 72 75 85
1024x768	60 70 75 85	60 70 75 85
1280x960	60 85	60 85
1280x1024	60 75	60 75
1360x768	60	60
1366x768	50 60	50 60
1368x768	60	60
1400x1050	60 75 85	60 75 85
1440x900	60	60
1600x1200	60	60
1680x1050	60	60
1920x1080	50 60	50 60
1920x1200	60	60

Audio Component	
Output	• 2 CH DAC output • DAC sampling rate from 8KHz, 16KHz, 44.1KHz to 48KHz with 16-bit resolution • Earphone buffer driving for output
Input	• 2 CH ADC Input • ADC sampling rate from 8KHz, 16KHz, 44.1KHz to 48KHz with 16-bit resolution • Digital Linear Microphone Gain Control function (-6db~33db)
Physical Specifications	
Housing Material	ABS (Plastic)

Dimensions	Main body without base: 36.5 (W) x 92 (D) x 154 (H) mm Main body with base: 86 (W) x 110 (D) x 162 (H) mm
Weight	Approximately 285g (including base)
Environmental Specifications	
Operating Temperature	10-40°C
Storage Temperature	-10~80°C
Relative Humidity	< 85% non-condensing
Regulatory Compliances	
Safety, EMI	FCC, CE
RoHS	RoHS compliant

* Specification is subject to change without further notice

6. Regulatory Compliance

FCC Conditions

This equipment has been tested and found to comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference

(2) This device must accept any interference received. Including interference that may cause undesired operation.

CE

This equipment is in compliance with the requirements of the following regulations:
EN 55 022: CLASS B

WEEE Information

For EU (European Union) member users:
According to the WEEE (Waste electrical and electronic equipment) Directive, do not dispose of this product as household waste or commercial waste. Waste electrical and electronic equipment should be appropriately collected and recycled as required by practices established for your country. For information on recycling of this product, please contact your local authorities, your household waste disposal service or the shop where you purchased the product.